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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/555,612	11/04/2005	Yoshihiro Kitano	Q91305	4512
23373 7590 07/30/2007 SUGHRUE MION, PLLC 2100 PENNSYLVANIA AVENUE, N.W. SUITE 800 WASHINGTON, DC 20037			EXAMINER AHMED, SHEEBA	
			ART UNIT 1773	PAPER NUMBER
			MAIL DATE 07/30/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/555,612

Applicant(s)

KITANO ET AL.

Examiner

Sheeba Ahmed

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>11/4/05</u> . | 6) <input type="checkbox"/> Other: ____ |

DETAILED ACTION

Preliminary Amendment

1. The preliminary amendment submitted on December 20, 2005 has been entered in the above-identified application. Claim 2 has been amended. **Claims 1-8 are pending and under consideration.**

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 3-8 is rejected under 35 U.S.C. 102(b) as being anticipated by Yamada et al. (US 4,082,854).

Yamada et al. disclose a packaging material having an improved gas permeation resistance, which comprises at least one layer composed of a blend of ethylene-vinyl alcohol copolymer with up to 150% by weight, based on said copolymer, of at least one thermoplastic polymer other than said copolymer (*See Abstract*). The packaging material may have either a single layer structure or a multi-layer molded structure or laminate structure comprising at least one layer of said copolymer or its blend and at least one layer of other thermoplastic resin. The packaging material can take, for example, a form of a single-layer or multi-layer film, bottle, bag, squeeze container, tube, tank or other vessel. Any thermoplastic polymers can be used as the

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thermoplastic polymer to be blended with the ethylene-vinyl alcohol copolymer and examples include acrylic acid ester-grafted polyethylenes, ethylenevinyl acetate copolymers, ionomers, partially saponified ethylene-vinyl acetate copolymers having a degree of saponification of 20 to 75%, said partially saponified copolymers grafted with acrylic acid or maleic acid, ***polybutylene terephthalate (i.e., a polyester)***, polybutylene terephthalate/polyteramethylene oxide block copolymers, ***polyethylene terephthalate (i.e., a polyester)***, polylauryl lactam, and polycaprolactam (*See entire document*). A blend of the above-mentioned ethylene-vinyl alcohol copolymer with at least one thermoplastic polymer selected from above is advantageous in that the above-mentioned excellent oxygen permeation resistance inherent of the ethylene-vinyl alcohol copolymer is manifested and when a multilayer molded structure is prepared by co-extruding this blend and a polyolefin, a bondage excellent in the interlaminar peel resistance can be attained between the blend layer and the polyolefin layer. In the case of a packaging material having a multilayer molded structure or a laminate structure, a layer of the ethylene-vinyl alcohol copolymer or its blend may be an intermediate layer or an outer or inner surface layer of the packaging material. In general, in order to prevent the moisture or humidity from adversely affecting the oxygen barrier property of the ethylene-vinyl alcohol copolymer, it is preferred that the layer of the ethylene-vinyl alcohol copolymer or its blend be an intermediate layer. In this case, it is preferred to use as the surface-layer constituting material a thermoplastic polymer such as polyolefins such as polyethylene and polypropylene, polyesters such as polyethylene terephthalate and polybutylene terephthalate,

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polycarbonates, polyamides, and nitrile resins such as acrylonitrile-styrene-butadiene copolymers, methylmethacrylate-grafted acrylonitrile-styrene-butadiene copolymers, methyl methacrylate-grafted acrylonitrile-butadiene copolymers and methyl methacrylate-grafted acrylonitrile-styrene copolymers. With regards to the limitation that resin A and resin B take a sea-island blend structure, the Examiner takes the position that the blend of ethylene-vinyl alcohol copolymer and the thermoplastic taught by Yamada et al. must take the sea-island structure given that the amount of each component and the chemical structure of each component as taught by Yamada and that in the claimed invention are identical. All limitations of claims 1 and 3-8 are either inherent or disclosed in the above reference.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over Yamada et al. (US 4,082,854).

Yamada et al., as discussed above, do not disclose the claimed average domain diameter and the dispersion parameter.

However, it would have been obvious to one having ordinary skill in the art optimize the average domain diameter and the dispersion parameter given that

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Yamada et al. teach that the amount of the ethylene vinyl alcohol copolymer present has important influences on the oxygen permeation resistance of the final packaging material.

Conclusion

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sheeba Ahmed whose telephone number is (571)272-1504. The examiner can normally be reached on Monday-Friday from 8am to 2pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carol Chaney can be reached on (571)272-1284. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Sheeba Ahmed
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July 21, 2007